



The Role of Technology in Innovating English Teaching to Improve Learning Outcomes in the Digital World



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Abstract

This study examines the job of innovation in further developing English learning results by utilizing an all-computerized application. We have gotten information from different writing and distribution sources, including books, scholarly works, and sites. Next, we try to study with a phenomenological approach, a mechanism to understand large amounts of data to obtain data that can answer research problems. The analysis includes data coding, data interpretation, and drawing conclusions based on the principles of validity and reliability of data findings. Based on the presentation and discussion of the data, we can conclude that applying technology with various software helps teachers and students improve English learning outcomes. Now technology makes it easier to learn in class online or face to face. This is supported by the fact that technology can innovate English language learning compared to teaching before the advent of educational technology. These results are expected to be beneficial for related parties, including teachers, curriculum designers, policymaking, and further research.

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1 Introduction

From the past until now, it is necessary to realize that learning a foreign language will be helpful for many people, especially the younger generation. Since the birth of technology, learning a foreign language is not as difficult as it used to be. Many technologies can make it easier for students to learn foreign languages, such as English (Ammade et al., 2018). Many people access English content with technology applications to get videos and course materials. In this application, students and teachers can search for content according to the material they want to learn and immediately learn English without downloading videos. One of the most accessible content to get his videos on various technology applications because video content that presents English is the most accessible technology to use. The number of English people is increasing every year, and the number continues to increase (Huzairin et al., 2020). This is none other than the existence of technology, especially applications or software that are easily accessible with an internet connection, according to (Sari, 2020). She explained that in 2020 there would be approximately one billion English learners then; the number will double from before. Van et al. (2021) explained that we could use several technologies to learn English. They mentioned that many technology applications could help English learners. They added that technology was very effective in English classes (Canal et al., 2012; Park et al., 2009).

The utilization of innovation for learning, mainly English, has become a need that cannot be delayed any longer (Putrawan & Riadi, 2020). Its various applications are currently locally available and fit to be utilized, preferably for educational purposes. The utilization of information and correspondence advancements for showing English should be possible in various techniques as per the necessities. As indicated by Saleh e al. (2017), the advantages and viability of information and correspondence developments from innovation in training can be sorted into a few capacities, which incorporate (1) as a wellspring of data, (2) as a learning guide, (3) as an educational source, (4) as an expertise objective, (5) as an administrative technique, (6) as school help, and (7) as an enlightening model (Ciptaningrum, 2017). Referring to the seven functions, it is possible to feel that technology can commit to seeking individual satisfaction of students and teachers, especially in a teaching environment. The main goal of this technology is to integrate the use of data and communication innovation technology in making a critical commitment to work on the personal satisfaction of the educational community in many places, especially in countries where English is still a foreign language that requires extra work in learning English (Huzairin et al., 2020).

Especially after the government established the National Education Network to increase the use of technology in Indonesian schools' foreign language teaching environment Manoharan & Melitski (2019), the side effects of teaching English are uncertain. This is reflected in the reports of several world organizations regarding the seriousness of Indonesian human resources with different countries. Based on the 2006 UNDP report, Indonesia's Human Achievement Index position is ranked 108 out of 177 countries (Yolanda, 2017). Meanwhile, the position of Indonesian human resources, which contrasted with countries in the Asian region in previous years, could be caused by the mastery of foreign languages. This shows how Indonesia's position has not changed much since around 1995; there was no position adjustment between 2003, 2004, and 2006.

When viewed from the number of countries studied. Indonesia is in position 112 out of 175 countries (2003) and 111 out of 177 countries (2004), and 108 out of 177 countries (2006). Other country associations also specifically emphasized this: International Educational Achievement for Indonesia (IEAI) reported that the reading ability of Indonesian elementary school students was ranked 38 out of 39 countries studied (Utomo et al., 2020). Meanwhile, the Third Mathematics and Science Study (TIMSS), an institution that applies learning outcomes at the international level, revealed that the numeracy skills of lower-middle Indonesian students also ranked 34th out of 38 countries. Science ability ranks 32 out of 38 countries. Training and developments and changes in Indonesia must continue if Indonesia wants to improve its position internationally (Rusilowati et al., 2016).

Furthermore, efforts to improve proficiency in English mastery must also be made to strengthen schools so that the quality of teaching services is adjusted to the demands of the times (Samson & Collins, 2012). The low quality of Indonesian student human resources cannot be separated from the results achieved by Indonesian education so far, and it must be admitted that there are still many problems facing the world of education in Indonesia. Until now, the impact of the training must be seen in the ability of young people to maintain reality, especially in mastering technology and foreign languages. Albeit numerous youngsters can present a reasonable degree of consistency in the material they get, they frequently do not look profoundly into the substance of the material (Gabrieli et al., 2018). How could Indonesian youngsters comprehend the emotional reason wherein the truth is entwined and its ability to draw in this data in new conditions? This incorporates learning English. As the world's primary language, English is concentrated in the global-local area as a medium to perceive and investigate the remainder of the world. Alongside the progression of science, innovation, advancement, and presently creating abilities, understudies can have it in only

seconds. Through the Internet, incidentally, learning English is astonishing and fun (Atkinson & Mayo, 2010). Consequently, it is essential to make substantial strides in creating innovation-based English learning with different applications to suit the idea of showing English as the language most keen in the world's local areas.

There are still many teachers and students who still do not use technology in learning English. Even though technology has been recognized and proven to be very beneficial in improving learning outcomes, educators and students can carry out online teaching and learning activities, making it more flexible and not limited in time. This technology has also helped educators and students a lot during the COVID-19 pandemic (Huang et al., 2020). Take Advantage of Technology to Learn English – In the past, students who studied English had to carry a very thick English dictionary, not to mention several textbooks to carry. To listen, learning has to take turns to English audio, and students have limited tools. Moreover, to communicate with native speakers, students have to fly directly to an English-speaking country. However, now, there is a technology that makes it easier for us to learn English. Here is a list of some of the latest technologies that teachers can use to be good at speaking English. So, with the advancement of technology and the existence of the internet, do not waste time and money just for entertainment, let alone getting too negative things (Aljaser, 2019). It is better if all these opportunities are used to learn English. Everything is easy. We can learn only in our hands by reading, listening, watching movies and videos, etc. However, that does not mean we forget how to learn offline, which is also effective, for example, by learning English at school or the course. Including do not forget to stop by the English village of Pare because learning by meeting the tutor directly and studying online will undoubtedly have a different effect. On that basis, we discussed again the issue of teaching English supported by technology so that teachers and those who are competent in teaching English are determined to use technology for successful learning (Dashtestani & Stojkovic, 2016).

2 Materials and Methods

Furthermore, the writing method section will describe the process of carrying out a study to understand the role of technology in innovating English language teaching to improve optimal learning outcomes in the era of digital technology (Huang et al., 2019). The author believes that along with technological advances, of course, there will also impact on teaching English. Previously, English language teaching was still done traditionally, so the output was minimal compared to teaching in the technology era (Pourhosein Gilakjani, 2018). For this reason, we searched for data on published literature sources such as books, academic works, and various literature sources on the Website. We then analyze the collected data under a phenomenological approach, which is an attempt to understand something phenomenal from a large amount of data so that we can answer the core problem with valid and reliable principles (Gökçe et al., 2014). As for the analysis process that we carried out, among others, such as coding the data and analyzing in-depth and high and critical evaluations, we finally arrived at concluding essential points relevant to answering the problems and hypotheses of this study. Our data search is done electronically by installing keywords such as technology and innovation, teaching English to improve optimal results, and the digital era. Furthermore, after finding the data, we reported a descriptive qualitative study design that paid attention to the previous study design model. This is the arrangement of the steps for carrying out the study that we carried out to get serious resistance to the role of technology in innovating English learning to get optimal results (Mokhtar, 2016).

3 Results and Discussions

In this results section, we will describe the results of this study which aims to gain a deep understanding of the role of technology in teaching English and is an effort to improve learning outcomes in today's digital era. In this section, we also include the results and discussion of a series of studies from various publications related to the problems of this study (Sandberg & Hofer, 1987; Guimaraes Jr & Guimaraes, 2006).

Evidence of Successful Learning English Using Technology

All nations recognize that government is critical and think about the progress of their nation and state. The two fundamental problems they face are improving the quality and progress of learning entrances (Lingard, 2010). Essential questions in overcoming this problem are (1) how to deal with the demands of schools at all lines and

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levels to create individual students who can increase their skills as citizens of the community. This nation is ready to live and compete in the workforce. Furthermore, (2) how to provide the most extensive education covering the mastery of foreign languages and the organization of discovery that can be made to all children and their residents with little respect for the premise of nationality, religion, monetary establishment, direction, home domain, and state of mind. These two problems try to be handled together, one of which is mastery of foreign language skills (Nation & Waring, 2019). Given the various deterrents that exist so often, the idea provides a delay in the treatment of the disputants. However, the presence of technology (Information and Communication Technology) is an effective strategy to overcome this problem (Li & Flowerdew, 2020; Cai, 2012).

This depends on several checks as follows; 1) The Study of the Impact of Information Technology on Children's Achievement in Primary and Secondary Schools explores the positive relationship between the use of technology in the classroom and student performance (Çakici & Türkmen, 2013). 2) The 1997 World Bank report on the intricacies of the Global Distance Learning Network program encouraging e-learning to prepare in America makes much sense, involving 30% better schools, 40% less coercion, and 30% lower costs. 3) Muijs & Lindsay (2008), in Effective Teaching found that using technology in the classroom resulted in high energy and on-task behavior in students in doing assignments because students learned new things and fluctuated. The test's positive result supports using technology in English and looking for ways to develop further learning. This work follows the program of the Ministry of Education and Culture through this channel which is still broadcasting live to encourage technology in the realm of preparing Indonesian human resources (Jandevi, 2019). After all, entering the application in English and sorting out several ways to function properly requires the synergistic progress of various experiences, including a capable teacher. An instructor can understand the use of virtual learning and have the choice to learn English and its learning (Hinduan et al., 2020).

Technology-Based English Learning Innovation Thoughts

The term advancement of foreign language teaching with application tools shows something new, extraordinary, and interesting for students if they are taught with technology (Blake, 2013). Uniqueness and attractive qualities should encourage the practicality of learning. Humans as dynamic, friendly creatures and disappointed if they do not succeed with what they have now will continue to try, investigate and create something 'new' or 'other' than expected, as well as development issues closely related to the evolving experience of language teaching. Foreigners (Rivers, 2018). Development in learning can be defined as another work in progress experience, utilizing various strategies, approaches, offices, and a stable climate for achieving learning objectives. Likewise, the term 'innovation in Development can be deciphered as whatever has not been found, perceived, or carried out by the beneficiaries of progress. In this way, the Development of innovation-based English learning and applications can be perceived with virtual-based learning apparatuses. These instruments incorporate (1) KTSP thought framework, (2) example timetable of showing plans, (3) material exhibition materials, (4) media/props, and (5) learning appraisal (Mutambik, 2018).

Stringently talking, creating innovation-based English should be seen from the outcomes of learning apparatuses. This mechanical gadget is bundled in an application-based learning plan without obliterating understudies' open abilities in procuring an unknown dialect. The learning pressure point underscores the idea of language progress as an informative means for students to make sense of the surrounding scene. The influence of Development in learning English is the introduction of creative educators (Dora To et al., 2011). Next is a portrayal of the Development of creating innovation-based English learning. As a medium in the learning cycle, innovation offers a few applications that can be created in learning English. This application integrates the going with E-learning or online learning will be understood whose execution is upheld by the organization of developments like phone, voice, tape, satellite, or PC transmission for instance, courses or preparing with distance learning media and advanced homeroom instructors. There are three web-based learning systems in E-learning (Sinclair et al., 2016).

In addition, all students are allowed to use and investigate any material available in the EdukasiNet learning system through learning materials, well-known information, and each participant's communication center. The use of technology should be possible at home and anywhere for students who have technology devices connected to the Website. To incorporate Edukasi-Net as a learning approach in the school environment, several things must be considered so that technology can be helpful (Pannen, 2015). a) Environmental variables that include educational institutions (for this situation, schools). b) Student/student/student, including age, financial and social basis, language and IT education dominance, and different learning styles. c) Teachers/teachers/students, covering foundation, age, style, insight, and character. d) Technological elements include PCs, programming, web association organizations,

and various necessary capacities to use EdukasiNet in a school climate (Haryudin & Resmana, 2020). The general benefits of Jardiknas incorporate a) Increasing the speed of fundamental advantages, being shrewd, finished, exact, and easy to get data. b) Provide incorporated direction information and authoritative data. c) Creating an immediate and cognizant culture. d) Is a powerful, enlightening advancement medium. e) Increase correspondence and correspondence, both neighborhood and all-inclusive. f) Access different execution materials from around the world, and g) Improve the productivity of different data exercises. Even to make a more extensive affiliation, the utilization of ICT is likewise planned as a web affiliation. This affiliation has turned into an actual vehicle for learning and having an effect (Maiyanti et al., 2016).

The Web first seemed to make sense of crucial learning in quite a while. In mid-1968, the Advanced Research Projects Agency at the United States Department of Defense made a pilot association called ARPAnet to help with examinations and data on the American military. However, over time the facility continued to improve. The association was used for research and higher-level training purposes, starting with well-known universities such as California, Stanford Research Institute, and Utah (Fletcher, 2011). The web application workplace is satisfactory enough to offer assistance to the military, extensive correspondence, business, and tutoring circles. As technology was called it, Mundi & Awolunate (2013), states that the tutoring universe has entered the fifth agitation regarding its use for tutoring. Essential turmoil occurs when people give their children tutoring to a teacher. Subsequent revolts that occur while creating are used for the ultimate goal of learning (Stine, 2009).

Other innovative work designs were imparted by (Ahmadi & Reza, 2018). The utilization of innovation in showing English is a learning device. Current developments can change how data and correspondence are packaged, spread, and assessed. It, therefore, impacts approaches to creating and delivering materials from simple to advanced print and structure, such as DVDs, CD-ROMs, and other electronic online learning materials (Trelease, 2016). Individuals will prefer learning techniques that are more adaptable, simple, and according to their specific needs and conditions. This triggers a change in the example of education from the traditional way to distance more open learning services. With this advanced web development, correspondence frameworks and movement systems and correspondence among understudies and teachers, instructors and teachers, or understudies and understudies should be conceivable in different designs and modern ways, both at the same time deferred. A few kinds of correspondence that can be completed incorporate electronic trade (talking); Electronic talk is a text-based conversation that should be conceivable web-based, facilitated between no less than two communicators (Gamell et al., 2014).

Another model is that a teacher from a specific school can look at a specific matter with understudies in a few individual schools (Timperley et al., 2014). Progress in computerized advancing requirements to get a positive response from the gatherings, particularly decision making, with a definitive objective of chipping away at the idea of tutoring, explicitly speeding up understudy learning. Nonetheless, additionally fundamental for the center around issues are in many cases found in the Development of innovation-based English language picking up, including that admittance to have choices for using innovation, for instance, the openness of web associations, power, phone, and other supporting establishments (Billings & Mathison, 2012). The next problem is the accessibility of programming, more specifically, how to get inexpensive programming so that expensive specialists do not burden schools. The issue of the impact of parenting on current education plans. The problem of skills and information and attitudes towards technology must be straightened out because many educators are still wrong in looking at technology in education differently. Therefore, it is essential to make how everyone has an optimistic view of technology, how everyone can know the possibilities of digital capabilities and their impact on students and society so that innovation can accelerate socialization and improve the quality of school outcomes (Stockwell, 2013).

Technology and Development in teaching English

At this point, information advancement in preparing has gone into various subjects, including English subjects. There are permanent development positions in learning English, especially in the hour of the Covid-19 pandemic, where acquiring information from schools has become striking. Concerning Development which is very strong in learning English, the maker endeavors to analyze the utilization of advancement in finishing English learning both on the Web and on disengaged. We have summarized from a couple of sources: First, Quipper School. *Quipper School* is a phase expected to concentrate on lobby learning. This stage can be used for focus and auxiliary instructors and students. Second, Edmodo. *Edmodo* is a preparation network-based Learning Management System stage that will relate educators, students, and even gatekeepers, to do Web finding that nothing can get. Not simply conveying, through this stage, instructors can do progressing by sharing substance such as text or video practice questions, up to

homework. Third, Socratic. Socratic is, for all intents and purposes, identical to Edmodo and Quipper school. The splendid show makes students experience enthusiastic affections for Socratic that can download the application on google play and I-store. Fourth, Padlet ([Sandberg & Hofer, 1987](#); [Guimaraes Jr & Guimaraes, 2006](#)).

Padlets can be a spot for students to encourage their making capacities, and the outcomes of their activities can be taken care of. They will be necessary for a capacity assessment for students. Generally, a few students are embarrassed to present requests in class. Padlets then become a phenomenal gadget for students tentative about presenting direct requests. They type in the Padlet, and the teacher can utilize their requests and answer them right away. Fifth is the Acapella Group. This application makes it incredibly basic for English or other obscure lingo teachers to cultivate students' listening capacities. The educator types sentences and Acapella will misleadingly deal with these sentences in the sound we want. Sixth, Booktrack. This application is heaps of clowning around. Students can additionally foster scrutinizing capacities while focusing on music. Consign students to utilize books on the book track; they will scrutinize while focusing on music that fits the book's storyline. Moreover, we can help every one of the students make stories in the book track and plan the music they like. So, as well as understanding capacities, this application can be used to make capacities. Seventh, Whatsapp. WhatsApp is a messaging application for PDAs. Bundles on Whatsapp have, in like manner, been comprehensively connected with the neighborhood. Numerous social occasions use WhatsApp as a development that makes every day, every day, or month-to-month programs ([Murtonen et al., 2017](#); [Bakkenes et al., 2010](#)).

Benefits of Technology in Improving Language Skills

A few examinations on the advantages of including mechanical developments in English language schooling and learning have been completed. For instance, Shih (2011) states that innovation runs like a soul in empowering teachers and understudies to work in new ways. Many examinations comprehend that utilizing innovation will make understudies freer; educators feel a sense of urgency to need and support their understudies to act and think freely. PC Assisted Language Learning alters understudies' learning viewpoint and builds their certainty. Information and correspondence development enjoy a few benefits for educating and learning. To begin with, students consider the working part, which can help them hold data. Then, follow-up conversations include more data where students can be more accessible. Finally, students can handle new student-based teaching materials, and their language acquisition skills can be built ([Abdullayeva, 2021](#)). The use of innovation has changed the strategy from being educator-focused to student-focused. Teachers should be facilitators and guide their students' learning, and this change is constructive for students to develop their learning. [Ranganath et al. \(2017\)](#), say that innovation expands student participation in learning tasks. This helps them collect data and work with assets such as records. [Ranganath et al. \(2017\)](#) illustrate two different perspectives on incorporating innovation into the classroom ([Roure & Keeley, 1990](#); [Guston & Sarewitz, 2002](#)).

To begin with, in mental methodology, students get an excellent opportunity to build their openness to language and make their insights original. Second, in social methodology, students must be provided with open doors for legitimate social connections to practice genuine abilities. This goal can be achieved through the coordinated efforts of students in simple exercises. [Patel \(2018\)](#), says that computer-based correspondence is a valuable component of language learning. Assisted conversation technology covers more equal interests than face-to-face conversation. [Sharma et al. \(2020\)](#), supports the above view and says that accepting natural material in the objective language is the basis for fruitful language learning. According to [Ross et al. \(2016\)](#), innovation helps students and educators to concentrate on the subject matter due to its fast access. Advances in innovation play an essential role in preparing students to utilize what they are aware of in any topic to track their position in the world of work. Innovation works with student learning and serves as a genuinely instructive tool that allows one to know how it happens. [Ross et al. \(2016\)](#), innovated in language learning. The results showed that student learning was improved by coordinating innovation in the homeroom. Students revealed that using innovation in school makes learning fun and helps them find out more. Students also said that innovation makes retrieval interesting, fun, and intuitive ([Handayani et al., 2019](#); [Briones et al., 2020](#)).

Another result of this exam is the use of innovation to build inspiration, social cooperation, learning, and student commitment. [Barracough & Pit \(2021\)](#) state that one of the effects of engaging innovation in language classes is to expand participation among educators and students. In essence, when educators allow students to become collaborators in the performance system, this can build student confidence. Students have provided the opportunity to build sentiment and capacity from now on scientifically. Students can assist educators in the innovation mix because students have many opportunities to dominate innovation while educators work to coordinate mentoring. [Gull et al.](#)

(2020), also underlined that using PC-based homeroom teachers represents real growth opportunities built on student responsibility. Instructors say that the use of the Internet and email encourages student-focused learning. Parvin & Salam (2015), conducted a review. They state that by leveraging innovation, students have the opportunity to broaden their openness to language in significant settings and create their insights. Students must have open doors for social collaboration to practice original skills.

This is accomplished through joint understudy efforts in specific activities. Van Minh et al. (2017), investigated the effect of advancement on learning. The discoveries of this audit uncover that understudies expand their advancement by coordinating development in their study halls. Experts underscore that advancement makes understudy recovery drawing in and natural and widens their motivation, social affiliations, and responsibility. Smith (2020), conveys that focus includes development in dealing with understudies' perusing and composing abilities. The outcome of this exploration is that the creative devices work on understudies' perusing and composing abilities since they are client-accommodating, and understudies can learn all the more rapidly and strangely. One more finding of this study is that understudies learn more precisely while utilizing inventive gadgets rather than the typical exhibition systems. The Internet gives a decent learning environment for understudies to get the hang of, working with different stages for understudies who can have supportive acknowledgment to learn learning delineations.

Another review was completed by Alsaleem (2013), regarding the involvement of the WhatsApp application in English exchange diaries to work on student composition, jargon, word decision, and speaking capacity. Given the side effects of this review, it is reasonable that WhatsApp showed improvements in students' writing skills, speaking skills, jargon, and word decisions. Costa-Sánchez & Guerrero-Pico (2020), looks at students' inspiration and commitment to the study space. The findings obtained from this review reveal that students are bound to participate in learning spaces when innovation is used as a learning tool in the classroom. Innovation instruments show improvement in terms of availability and inspiration. Yeboah & Ewur (2014) directed a survey to investigate whether Wiki development would additionally foster understudies' composing abilities. Understudies are free to join a Wiki page where they will compose segments and read and answer passages from the companions of their sort. Understudies exhibit that the speedy input they get is beneficial for using this advancement.

4 Conclusion

The end of the study will conclude the essential points of the search for scientific evidence that states the considerable role of technology in optimizing English language teaching in this era of digital technology. Based on a review of some literature sources, we found that there is some scientific evidence that we have presented related to the role of the power of technology in innovating English language learning in schools and universities where the power of technology can innovate both in teaching and evaluation it is proven to be able to improve the achievement of results. Learning is optimal compared to methods or learning systems before this sophisticated technology was applied to learning English. As for what we have described, there is some scientific evidence of how successful English learning is achieved by adopting or applying technology in teaching English. The following finding is how technology-based learning can provide high innovation and creativity. English, a foreign language considered difficult, will become easier when this technology is adopted in the classroom and government documents, namely in the learning curriculum. Our following finding noted the technology and Development of teaching English after it was clear that learning that adopted technology with all the applications that have been and continue to be created has been able to provide innovation and solution, significantly when Indonesia and other countries are disrupted by the emergence of a pandemic where learning is conventional switch to the remote system. Yes, technology can provide ideal solutions and other crisis times, such as the scarcity of teaching staff, which can be solved alternatively, namely the use of technology. In the end, we also found out how, fortunately, the application of technology as an effort to improve learning outcomes of English is made by presenting scientific evidence from the study of a series of experts who have contributed to convincingly how technology helps provide solutions to learning English not only in Indonesia but also in Indonesia. Other countries, especially countries that do not use English as their mandatory or official language.

Conflict of interest statement

The author declared that he have no competing interest.

Statement of authorship

The author have a responsibility for the conception and design of the study. The author have approved the final article.

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